NOAA's National Ocean Service

ROUNDTABLES

SUMMARY: ADVANCING OUR UNDERSTANDING *of the* OCEANS

On January 14, 2004, NOS Assistant Administrator Dr. Richard W. Spinrad hosted the second NOS Constituent Roundtable, "Advancing our Understanding of the Oceans." Thirty constituents from academia, industry, nongovernmental organizations (NGOs), and state and local agencies joined Dr. Spinrad and NOS office directors to discuss how ocean observations can advance our understanding and management of the oceans. Following is a summary of the discussion that emphasizes the participants' recommendations to NOS.

Opening Remarks

Dr. Spinrad opened the roundtable with an update on internal and external NOAA issues affecting NOS and its partners. A newly created NOAA Ocean Council is raising the profile of coastal and ocean science and management, and is developing responses to anticipated recommendations in the upcoming report from the U.S. Commission on Ocean Policy. Concurrently, a research review team is responding to House and Senate language addressing NOAA's research. The team's preliminary response to Congress recommends leadership from a research "czar" and a 20-year research strategy to complement the NOAA strategic plan. Dr. Spinrad presented his vision of NOS as a global leader in integrated management of the oceans, particularly in the area of ocean and coastal observation systems. He concluded by acknowledging the role of NOS partners in implementing his vision, and welcomed suggestions from the roundtable participants.

Constituent Observations

Building National Ownership of the Ocean

Improved marketing and constituent awareness of ocean observing are critical to building a strong public and private sector support base. One participant noted that ocean observing is driven by independently operating coastal groups who look to the nation to fund their ideas. This has resulted in a set of uncoordinated programs supported by earmarks. Federal leadership is needed to promote a National Observing Service from a national perspective. NOS should work with its constituents to articulate a clear case for ocean observing and build a national program. Roundtable participants recommended marketing the concept of coastal observation by identifying national priorities, articulating the goods and services to be delivered, and identifying users and supporters of a national system.

The need for improved education extends beyond ocean observing. While awareness of the biological impact on the environment is increasing both within the general public and on Capitol Hill, many of the participants expressed concern over the lack of "national ownership" of the oceans. NOS should work with partners to pick a clear message and a unified approach to delivering it. When ocean issues are in the news (e.g., risks associated with farmed salmon, mercury levels in swordfish), a unified NOS response should indicate knowledge of the issue and offer science and management recommendations. NOAA's corporate communications capability should be harnessed to develop strong story lines and an overarching look. Participants also asked for information on how programming, especially for science, will address NOAA and constituency needs.

Expanding Partnerships

Roundtable participants asked NOS to continue to explore broader, more diverse partnerships, and to expand existing ones. Participants from the academic community requested more opportunities to be contributors to, and users of, products and research related to ocean observing. One participant offered that stronger ties with academia would bring a local presence and local partners to NOS programs (e.g., PORTS), and that such local support might translate to funding. Universities must do their part by promoting the value of applied research and establishing a reward system that recognizes the relevance of high-quality research. In addition to supporting this award system, it was recommended that NOS focus on the transition to operations while universities take the lead in research.

Several constituents from the offshore oil and gas industry acknowledged that ocean observing systems have the potential to improve safety, operations, and efficiency in their fields, and offered their platforms and remotely operated vehicles (ROVs) to support exploration and observations. The oil and gas communities have been leaders in ROV exploration and offered to head development and share data. They suggested focusing on energy, physical oceanography, and exploration to build partnerships and political support.

Building a National Program

NOS should work toward a seamless connection between ocean observatories and observing systems, and between local, regional, and national programs. Several participants noted that many observing systems are driven by a research question, not a regional or local need. These systems developed at different scales, and may lack coherence. Integrating local observing programs into larger regional associations may require a cultural shift to increased regional cooperation. These regionally relevant observing systems must also be nationally coordinated. Regional programs must be inclusive enough to demonstrate maturity and exclusive enough to generate enthusiasm at the national level. NOAA must provide a strong federal lead and funding, and demonstrate its intent as the national "backbone."

A NOAA 20-year strategic research plan will help by clarifying NOAA's intended role in ocean observing systems and, in doing so, will advise partners how they can contribute to mutual goals. All participants supported the development of an agency-wide research process; some suggested broadening the plan to look beyond NOAA and to work at multiple time scales. The plan should build on national, regional, state, and local planning efforts, and address how partners will reduce the distinction between coastal and ocean observing and modeling. The plan should include steps to build capacity around ecological observing issues and to meld existing observing programs into a network that addresses ecological issues.

Linking Science and Management

The products and services of ocean observing systems must meet the needs of users. Some participants felt that existing programs emphasize blue-water observing rather than the tributaries and coastal areas where management problems are concentrated. NOS was invited to work with its constituents to identify customers and their information needs, and develop a joint vision of what they are trying to accomplish. Permitting and regulatory agencies should be part of this process. Clear articulation of the goals of a National Observing System is a precursor to developing a strategy and identifying products. Participants noted that there would be tiers of users

for the observing system. For example, one set of users may rely on the observing system to develop improved predictions, while others will use it to evaluate implementation of management strategies. For all users, the observing system provides a framework to build a continuum between the user base, academics, and federal sectors. To this end, most participants requested increased integration of NOAA and academic activities.

Developing Infrastructure

Challenges in ocean observing are not limited to science and technology; they extend to data access, coordination, application, and sustainable funding. One participant questioned whether the infrastructure is in place to manage the huge amount of data and produce the desired products. Another was concerned about ease of access to information and expressed the desire for NOAA to become a repository for observing information. Other participants observed that the process for development of ocean models is not clear (as it is for weather models) and asked NOS to clarify the process. Participants recommended building a system from the ground up by putting together a small version of the system that contains all of the components required in a full-scale version (i.e., "start small but start whole"). An intact system will be critical to building credibility with the user community. NOAA will need institutional support and a governance structure for regional networks and national coordination. The National Ocean Data Center will need to work with other federal agencies to manage this data flow. An institutionalized feedback loop should link data to user needs, and NOAA should have increased flexibility within funding lines to move resources to meet those needs.

Closing Comments

Dr. Spinrad thanked the participants for helping him understand the breadth of NOS's constituency and their concerns. He noted both the diversity and consistency of the comments. Dr. Spinrad agreed with participants that cost sharing by federal, state, academic, and industry partners is essential to building and supporting robust, useful observing systems. He renewed NOS's commitment to broadening partnerships and said he would pursue the suggestions provided to maximize existing relationships with universities and industry. Dr. Spinrad acknowledged the need for improved marketing and education, and the challenges inherent in building a seamless connection between researchers, users, and operations. He noted that the contacts made at the roundtable should allow participants to continue this dialogue, and that he looks forward to working with partners to address questions on infrastructure, data management, and platform use. Dr. Spinrad concluded by inviting all NOS constituents, and especially the roundtable participants, to contact him with ideas for implementing the concepts discussed at the roundtable.